California GARDEN

NOVEMBER-DECEMBER 2004 Volume 95 No. 6 $2.00

HORTICULTURAL CALENDAR

Nov. 1 Mon.

CGCI FLORAL DESIGN FORUM 2004-2005 "Table Artistry" Get ready for the Holidays and your Flower Show with functional and exhibition tables. Plenty of each style of design. Gudrun "Guddy" Kimmel, Torrance, CA is your guide and designer. 12:30 p.m. at Women's Club of Carlsbad, 3320 Monroe St., Carlsbad. $8. 760/749-9608.

Nov. 2 Tues.

★ALL-NATURAL BASKET CLASS WITH MARTHA ROSENBERG. Make an Appalachian or 3-ring basket from all natural materials. All materials included. Bring a towel and a bucket. 9:30 a.m.-2:30 p.m. $20 members, $25 non-members. Balboa Park, Casa del Prado, Room 104. Must pre-register. 619/232/5762.

Nov. 6 Sat.

CALIFORNIA COASTAL ROSE SOCIETY A hands-on demonstration at the Rose Gardens, Magee Park, Carlsbad. 9:30-11:30 a.m. Bring gloves and shears. 760/804-0875 or www.coastalrose.org. All are welcome. Free.

Nov. 6 Sat.

★SAN DIEGO FLORAL ASSOCIATION LIBRARY open from 10 a.m.-3 p.m. Members of SDFA can check out books. (Membership includes magazine, $10 a year-price increases in January 2005.) Balboa Park, Casa del Prado, Room 105. 619/232-5762.

Nov. 6 Sat.

UC IRVINE ARBORETUM Fall Orchid Festival. 10 a.m.-3 p.m. Corner of Campus Dr. and Jamboree Rd. on the UCI North Campus. 949/824-5833. Children under 12 admitted free, others $2.

Nov. 6 Sat.

WALTER ANDERSEN NURSERY GARDEN CLASS on Holiday Decorating Ideas, 9:00 a.m. 3642 Enterprise St., San Diego. 619/224-8271. Or Dormant Spraying: How & Why, 9:30 a.m. 12755 Danielson Ct., Poway. 858/513-4900. Free.

Nov. 6 Sat.

WATER CONSERVATION GARDEN CLASS "Simple Water Saving Steps for the Landscape." Instructor Pamela Holmfeldt, Landscape Designer. 9:30 a.m. 12122 Cuyamaca College Dr. West, El Cajon. 619/660-0614. Reservations required. Free.

Nov. 6-7 Sat.-Sun.

LAKE HODGES NATIVE PLANT CLUB Annual Plant Sale. Sat. 9 a.m.-4 p.m., Sun. 9 a.m.-12 p.m. In front of Von's Market, Plaza Center, Bernardo Center Drive, Rancho Bernardo. Free.

Nov. 6-7 Sat.-Sun.

SAN DIEGO TROPICAL FISH SOCIETY Show. 10:00 a.m.-4:00 p.m. both days. Balboa Park, Casa del Prado, Room 101. Free.

Nov. 8 Mon.

SAN DIEGO HORTICULTURAL SOCIETY "Protea in San Diego." with Ben Gill 6:30 p.m. Surfside Race Place, Del Mar Fairgrounds, Jimmy Durante Blvd. 760/730-3268. Free.

Nov. 9 Tues.

★A NEW DESIGN FOR THANKSGIVING WITH ELMA GARCIA NGC Flower Show Judge and local flower arranger will instruct you in a new design. Participants supply container, clippers, and floral material either purchased or from the garden. Flowers should include showy blooms, "line" material, and filler flowers. Sponsored by SDFA. 9:30 a.m.-2:30 p.m. $20 members, $25 non-members. Balboa Park, Casa del Prado, Room 104. **Must preregister.** 619/232-5762.

Nov. 10 Wed.

POINT LOMA GARDEN CLUB Monthly meeting: "Important Things to Cover When Designing Your Landscape." Program by Sisso Doyle, former co-host of HGTV's "Breaking Ground," 10 a.m. at Masonic Center, 1711 Sunset Cliffs Blvd., SD. Check www.plgc.org or call 619-276-0209. Free.

Nov. 13 Sat.

WALTER ANDERSEN NURSERY GARDEN CLASS on Poinsettias. 9:00 a.m. 3642 Enterprise St., San Diego. 619/224-8271. Or, Azaleas and Camellias with Monrovia Nursery, 9:30 a.m., 12755 Danielson Ct., Poway. 858/513-4900. Free.

Nov. 13 Sat.

WATER CONSERVATION GARDEN CLASS "Gardening Nature's Way." Connie Beck Crusha, writer, instructor, and speaker, is a volunteer with the National Wildlife Federation and California Native Plant Society. 9:30 a.m. 12122 Cuyamaca College Dr. West, El Cajon. 619/660-0614. Reservations required. Free.

Nov. 16 Tues.

★A SYNERGISTIC FLORAL DESIGN CLASS WITH VELMA WEST. Participants supply 4 related containers, clippers, and floral material either purchased or from the garden. Flowers should include showy blooms, "line" material, and filler flowers. Sponsored by SDFA. 9:30 a.m.-2:30 p.m. $20 members, $25 non-members. Balboa Park, Casa del Prado, Room 104. **Must preregister.** 619/232/5762.

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VOLUME 95 NUMBER 6

THE MAGAZINE FOR THE HANDS-ON GARDENER
NOVEMBER-DECEMBER 2004

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FRONT COVER photograph by Mary Wick of a section of Point Loma Native Plant Preserve.

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Nov. 17 Wed.
MISSION HILLS GARDEN CLUB Monthly Meeting "Holiday Florals" by Betty del Sol. 6:00 p.m. social, 6:30 p.m. meeting. Mission Hills United Church of Christ, 4070 Jacdaw St. 619/295-2702 or missionhillsgardenclub.org. Guests $10, members free.

Nov. 17 Wed.
SAN DIEGO COUNTY CYMBIDIUM SOCIETY Always a speaker, Q&A session, and raffle. 7-9:00 p.m. Women's Club of Carlsbad, 3320 Monroe St., Carlsbad. Opportunity table and refreshments. 760/729-0369. Free.

Nov. 18 Thur.
BERNARDO GARDENERS Guest Day 1:30 p.m. RB Library, Community Room, 17110 Bernardo Center Drive. Program: Aenne Carver, Topiary and Surprises to Use as Winter Decorations. Everyone welcome. Free.

Nov. 20 Sat.
★SAN DIEGO FLORAL ASSOCIATION LIBRARY open from 10 a.m.-3 p.m. See Nov. 6 for details.

Nov. 20 Sat.
SAN DIEGO NATURAL HISTORY MUSEUM Holiday Wreath Class. Create a timeless crescent design wreath from a grapevine base embellished with pinecones, cedar, and eucalyptus. 10 a.m.-noon. Register at 619/255-0203 or education@sdnhm.org. SDNHM members $45. Non-members $53.

Nov. 20 Sat.
WALTER ANDERSEN NURSERY GARDEN CLASS on Dormant Spraying of Fruit Trees, 9 a.m., 3642 Enterprise St., San Diego. 619/224-8271. Or, Winter Color, 9:30 a.m., 12755 Danielson Ct., Poway. 858/513-4900. Free.

Nov. 21 Sun.
WASHU-KAI SUMI-E PAINTING Show. 11 a.m.-4 p.m. Balboa Park, Casa del Prado, Room 101. 619/237-0658. Free.

Nov. 23 Tues.
★THANKSGIVING TOPIARY FLOWER ARRANGEMENT CLASS WITH VELMA WEST. Combine fruits, vegetables, and flowers into a stunning Thanksgiving arrangement. Participants supply containers, clippers, and floral material either purchased or from the garden. Floral material should include showy blooms, "line" material, fruits, vegetables, and filler flowers. Sponsored by SDFA. 9:30 a.m.-2:30 p.m. $20 members, $25 non-members. Balboa Park, Casa del Prado, Room 104. **Must preregister.** 619/232/5762.

Nov. 27 Sat.
SAN DIEGO ROSE SOCIETY Fall 2004 Rose Care Seminar for anyone interested in learning more about growing roses. 9:00 a.m.-3:10 p.m. Room 101, Casa del Prado, Balboa Park. $20, includes box lunch. **Send check by Nov. 20** to Bea Ericksen, 1065 Calle Mesita, Bonita CA 91902 or call 619/475-1534 or email richardericksen@msn.com.

Nov. 27 Sat.
WALTER ANDERSEN NURSERY GARDEN CLASS No classes at either location.

Dec. 1 Wed.
SAN DIEGO NATURAL HISTORY MUSEUM Botanical Christmas Class 6:30-8:30 p.m. Discover charming ideas to decorate your yard and home. Register at 619/255-0203 or education@sdnhm.org. SDNHM members $20. Non-members $28.

Dec. 3 Fri.
BOTANICAL BUILDING POINSETTIA DISPLAY DEDICATION 11:00 a.m. Public is invited. The building will open to the public immediately following the City Beautiful ceremony at 11:30 a.m. until 4 p.m.

Dec. 3-4 Fri.-Sat.
★SAN DIEGO FLORAL ASSOCIATION Annual Holiday Show, as part of Balboa Park's December Nights, "A Walk in the Park." The Museums of Balboa Park is the theme for Floral's 2004 gift to the community. The featured museums are the Mingei, Natural History, Railroad, Aerospace, Space Theater, Museum of Man, and Hall of Champions. The Arranger's Guild chose the Art Museum to stage an "Art Alive" show for all to enjoy. Casa del Prado, Room 101. 5:00-9:00 p.m. both days. 619/232-5762. Free.

Dec. 4 Sat.
CALIFORNIA COASTAL ROSE SOCIETY A hands-on demonstration at the Rose Gardens, Magee Park, Carlsbad. 9:30-11:30 a.m. Bring gloves and shears. 760/804-0875 or www.coastalrose.org. All are welcome. Free.

Dec. 4 Sat.
★SAN DIEGO FLORAL ASSOCIATION LIBRARY open from 10 a.m.-3 p.m. See Nov. 6 for details.

Dec. 4 Sat.
SAN DIEGO NATURAL HISTORY MUSEUM Botanical Christmas Class 10 a.m.-noon. Discover charming ideas to decorate your yard and home. Register at 619/255-0203 or education@sdnhm.org. SDNHM members $20. Non-members $28.

Dec. 4 Sat.
WALTER ANDERSEN NURSERY GARDEN CLASS on Rose Pruning, 9:00 a.m. 3642 Enterprise St., San Diego. 619/224-8271. Or, Winter Rose Care, 9:30 a.m., 12755 Danielson Ct., Poway. 858/513-4900. Free.

Dec. 4 Sat.
WATER CONSERVATION GARDEN CLASS "Lush Landscaping on a Low Water Use Budget" with instructor Dee Maranhao 9:30 a.m. 12122 Cuyamaca

College Dr. West, El Cajon. 619/660-0614. Free.

Dec. 5 Sun.

VISTA COMMUNITY CLINIC 18th Annual Holiday Homes Tour fundraiser for Kare for Kids program. Self-Guided tour of 4 lovely homes and Rancho Buena Vista Adobe—10:00 a.m.-4:00 p.m. $20.00 in advance, $25.00 day of event. To purchase tickets, call 760-631-5000 ext 1139.

Dec. 6 Mon.

CGCI FLORAL DESIGN FORUM "Flower Power" Watch the petals fly in a series of events as creative designers Sonja Longley, Sandi Lord, Kathy Taylor de Murillo, and George Speer demonstrate their skills against the clock. 12:30 p.m. at Women's Club of Carlsbad, 3320 Monroe St., Carlsbad. $8. 760/749-9608.

Dec. 8 Wed.

POINT LOMA GARDEN CLUB Holiday Tea and Bazaar. the Soledad Singers will present a 30 min. program of holiday music. Holiday crafts and greenery will be for sale. 10 a.m. at Masonic Center, 1711 Sunset Cliffs Blvd., SD. Check www.plgc.org or call 619-276-0209. Free.

Dec. 9-12, 16-23 also Dec. 26-30

QUAIL BOTANICAL GARDENS Garden of Lights. The Gardens are transformed into a dazzling winter wonderland with 90,000+ sparkling lights illuminating the plants and trees for a magical holiday experience. 5-9 p.m. $6 non-members, $4 members, $2 children 3-12. 230 Quail Gardens Dr., Encinitas. 760/436-3036.

Dec. 11 Sat.

QUAIL BOTANICAL GARDENS Live reindeer with Santa during Garden of Lights. See Dec. 9 for details.

Dec. 11 Sat.

WALTER ANDERSEN NURSERY GARDEN CLASS on Pruning Apple, Pear, and Persimmon Trees, 9:00 a.m. 3642 Enterprise St., San Diego. 619/224-8271. Or, Rose Pruning - Bare-Root Roses, 9:30 a.m., 12755 Danielson Ct., Poway. 858/513-4900. Free.

Dec. 13 Mon.

SAN DIEGO HORTICULTURAL SOCIETY 10th Annual Cookie Exchange. 6:30 p.m. Surfside Race Place, Del Mar Fairgrounds, Jimmy Durante Blvd. 760/730-3268. Free.

Dec. 16 Thur.

CALIFORNIA COASTAL ROSE SOCIETY will have their meeting at 7 p.m., with a speaker, raffle and light refreshments at Heritage Hall, Magee Park, Highway 101, Carlsbad. There will also be an informal discussion at 6:15 p.m. 760/931-9863 or www.coastalrose.org. All are welcome. Free.

Dec. 18 Sat.

★**SAN DIEGO FLORAL ASSOCIATION** LIBRARY will be open from 10 a.m.-3 p.m. See Nov. 6 for details.

SOME CLASSES LISTED IN PREVIOUS ISSUE HAVE SWITCHED DATES

See description of classes for November in "Horticultural Calendar."

All classes 9:30 a.m.-2:30 p.m., room 104, Casa del Prado, Balboa Park. Coffee, sweets provided, bring your lunch. Register at 619-232-5762, more info at 619-298-5182.

CLASSES WANTED

☐ All- Natural Basket
Nov. 2, $20, members, $25, nonmembers

☐ A New Design for Thanksgiving
Nov. 9, $20, members, $25, Nonmembers

☐ A Synergistic Floral Design
Nov. 16, $20, members, $25, nonmembers

☐ Thanksgiving Topiary Flower Arrangement
Nov. 23, $20, member, $25, nonmember

AMOUNT ENCLOSED $ . . . . . .

Make check payable to San Diego Floral Association.

SEND TO: San Diego Floral Assoc., 1650 El Prado, #105, San Diego CA 92101-1622

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CITY, ZIP

"DECEMBER NIGHTS" TEA FOR FLORAL ASSOCIATION MEMBERS AND MEMBERS OF AFFILIATES

SATURDAY

DECEMBER 4, 2004 — 10:30-11:30 a.m.

Visit San Diego Floral Association holiday display in room 101, Casa del Prado, Balboa Park. Enjoy refreshments and the friendship of Floral members.

Send an SASE for your free ticket to San Diego Floral Association, 1650 El Prado #105, San Diego CA 92101-1622.

Dec. 18 Sat.
QUAIL BOTANICAL GARDENS La Posada theme during Garden of Lights with traditional food and music. See Dec. 9 for details.

Dec. 18 Sat.
WALTER ANDERSEN NURSERY GARDEN CLASS on Pruning Peach and Nectarine Trees, 9 a.m. 3642 Enterprise St., San Diego. 619/224-8271. Or, Fruit Tree Pruning, 9:30 a.m., 12755 Danielson Ct., Poway. 858/513-4900. Free.

"DOWN TO EARTH" With Tom Piergrossi
Daily at 11:30 a.m. and 7:30 p.m. on CTN
Time Warner 22 or Cox 19 or 24, and
Adelphia 66

BALBOA PARK

SAN DIEGO JAPANESE FRIENDSHIP GARDEN Open Tues. thru Sun. 10:00 a.m.-4:00 p.m. Docent tours with reservations. Fee. 619/232-2721.

OFFSHOOT TOURS Ranger guided. Various topics. Saturdays 10:00 a.m. Meet at Visitors Center in Plaza de Panama. 619/235-1121. Free.

INTERPRETIVE WALKS Ranger guided. History oriented topics. Meet at Visitors Center in Plaza de Panama. Tuesdays and Sundays at 1:00 p.m. Free.

ONGOING EVENTS

SAN DIEGO NATURAL HISTORY MUSEUM Canyoneer Walks. Sat-Sun. Sept-July. 619/232-3821 ext 203 or www.sdnhm.org for locations, times and directions. Free.

QUAIL BOTANICAL GARDENS Open daily 9:00 a.m.-5:00 p.m. Call for times on docent led Garden tours, weekly or monthly events and classes for children and adults. Also, free Composting class 11 a.m.-12:30 p.m., 1st Saturday of the month. 230 Quail Gardens Drive, Encinitas. 760/436-3036 or www.qbgardens.com. General Admission.

BLUE SKY ECOLOGICAL RESERVE Walks. Poway. Sat. & Sun. 9:00 a.m. 858/679-5469.

WALKABOUT INTERNATIONAL Local Guided Walks. Newsletter. 619/231-SHOE. Free.

CUYAMACA COLLEGE Water Conservation Garden is home to 4+ acres of beautiful, award-winning low water use landscaping and educational displays. Docent led tours Sat. 10:30 a.m. and Sun. 1:30 p.m. 619/660-0614. www.thegarden.org. Free.

THE HUNTINGTON is open Tuesday through Friday noon to 4:30 p.m., Saturday and Sunday 10:30 a.m. to 4:30 p.m. Closed Monday and most holidays. $15.00 adults, $12 seniors, $10 students (12-18), $6 youth (5-11) under 5 and members free. Group rate (10+) $11. 626/405-2100 or www.huntington.org.

GARDENING CLASSES

JOYCE GEMMELL
7 WEEK COURSE
Fruit Tree, Vine, and Berry
Beginning Nov. 3 Wed. A.M.
Foothills Adult Center. 9 a.m.-12:10 p.m., Room 12, 1550 Melody Lane, El Cajon. 619/401-4122. $25.

CONNIE BECK CRUSHA
11 WEEK COURSE
Home Landscaping I - Basics of Organic Gardening
Beginning Jan. 5, 2005 Wed. P.M.
Santana High School. 6:30-8:30 p.m., Room 105, 9915 North Magnolia, Santee. 619/749-4059. $25.

National Wildlife Federation will hold a spring training seminar for stewards at the Cuyamaca College Water Conservation Garden starting January 15, 2005. The classes will run for four consecutive Saturdays and will cost $20 for materials. Volunteers for this class will become habitat stewards, trained to assist in consultation and education about wildlife habitat creation and restoration in the community. A 50 hour volunteer commitment is expected from each steward. For more information, call Connie Beck at 619 749-4059 or holisticgardener@yahoo.com.

Cuyamaca College Ornamental Horticulture Classes Starting January 24, 2005. For schedule call 619-660-4000 or www.cuyamaca.net

Deadline for submission to
HORTICULTURAL CALENDAR for
JANUARY/FEBRUARY issue is NOVEMBER 15. E-mail calendar@sdfloral.org
SAN DIEGO FLORAL ASSOCIATION is not responsible for changes that are submitted late by the organizations.

RENEW EARLY TO AVOID THE INCREASE IN PRICES STARTING JANUARY 1, 2005

Membership dues:

Individual/Family	$15.00
2 years	$25.00
3 years	$35.00
5 years	$60.00
Sustaining	$30.00
Contributing	$50.00
Life Member (After five years of continuous membership)	$500.00
Patron (may be property or materials)	$1,000.00

Dues for club and professional affiliates are unchanged.
Subscriptions to magazine are: one year $12.00
two years $20.00
Single magazine will be $3.00.

Gleanings . . .

gathered by barbara jones

HISTORIC ORANGE TREE . . .
The winter-ripening orange, 'Washington' navel, was introduced to California in Riverside in the late 1870s by Eliza Tibbets. Two trees were mailed to her by William Sanders, superintendent of gardens and grounds of the Department of Agriculture in Washington D.C. The trees came from Brazil. The two trees began producing fruit in 1875. Buds were used to plant more trees. These were the parent trees of the whole area. In the early 1900s there were 20,000 acres of groves. Other oranges were grown, but the navel orange made Riverside County rich and famous. One of the original trees still grows at the corner of Magnolia and Arlington Boulevards in Riverside.

Even though navel oranges are now grown in Florida, the California-grown fruit is considered the best for eating. The climate allows the fruit to ripen to a beautiful color. Most of the Florida fruit is used for juice.

When I was a child there was always a beautiful navel orange in the toe of my Christmas stocking.

ROSE COLOR . . .
The search for a blue rose is on — biochemists and geneticists are busy all over the world. A blue rose does not exist naturally. Some roses may have "blue" names but they are all purple. Blue pigment does not exist in roses. The genetic code must be manipulated to produce this unnatural color.

Historians estimate that the first roses were cultivated in Asia about 5,000 years ago. All roses were pink or white. At the beginning of the 1800s a scarlet rose was introduced from China. Later a green rose appeared. At about 1900 yellow roses began to be seen. A few years later a mutant yellow rose discovered by the Frenchman Joseph Perner-Ducher in his field has become the parent plant of all the present bright orange and yellow roses. Many of the purple roses are results of attempts to breed a blue rose.

One biotechnology company, after 4 years of work and 18 million dollars, was able to create a blue carnation. (The first blue carnations became available commercially in 1996.) This has given researchers hope that a true blue rose can be created. One researcher noted that even though a blue rose is developed, to be successful, it also must hold up during shipment, last in a vase, and smell good.

ROSE SHRUBS . . .
The fastest growing segment of the rose market is the sale of bush roses. Last year nine million plants were sold — that's 30% of all roses sold in the USA. One wholesaler sold 1.8 million of a new shrub named "Knock Out" that has red-rose flowers.

The flowers of bush roses are smaller, less vibrant in color, and have lighter scents than the classic hybrid teas and floribundas. But — they require little maintenance and have a longer blooming season.

PREHISTORIC PLANTS . . .
Plants that flourished in the Pleistocene era, 10,000 to 40,000 years ago, are again growing in a new garden opened in June 2004. The Pleistocene Garden is northwest of the Page Museum in Los Angeles. (Most know the area as the La Brea Tar Pits.) Of the 650 species excavated from the pits, the majority of them are plants. In the past only animal remains were on display. There are mature plants in the garden — redwoods, lemonade berry, alder, and western sycamore — that grew in this area during that period. Plants are grouped by associations typical of the region — riparian, coastal sage scrub, chaparral, and deep canyon. Two brochures, a plant list and a garden guide, will be available. The garden is located at 5801 Wilshire Blvd. The Pleistocene Garden and the old Tar Pits can be visited daily from 6 a.m. to 10 p.m. (For more information call 323-934-7243 or check tarpits.org.)

FOOD PLANT ORIGINS . . .
According to the September 2004 *National Geographic* many of the major food plants grown today throughout the world were first cultivated for thousands of years by Native Indians in the Americas. Plants were introduced to Europe by the early explorers. Main among them are the peanut, potato, tomato, bean, sunflower, yam, manioc (cassava), and corn. Today corn, the most widely grown food plant, is grown on every continent except Antarctica.

IN the GARDEN in EARLY MORNING

BY HELEN HAMRICK

WHAT BEAUTIFUL SURROUNDINGS TO begin the day, with an uncluttered mind, open and receptive to the adventures ahead.

Seven ducks flew away from the rose garden and are now sleeping on the lawn below. A gadwall is with the mallards. "Sunday," the two-year-old female mallard, is in the pond with the other ducks. In the recent past, as Sunday's siblings one by one disappeared, my daughter rescued and raised her until she was ready to fly away. She has returned a second year.

Several house finches are feeding upon seed fallen to the ground from the large feeder, a backdrop to the rose garden. I hope the ducks breakfasted on slugs and snails in the *Myoporum parvifolium* and heather, *Calluna vulgaris*, ground covers. Two spotted towhees are busy raking up leaf litter under the sycamore tree. Mourning doves are at the feeder. Oh! They're back! Several red-winged blackbirds are descending upon the feeder. Is there a food they do not eat? Likewise, scrub jays do not discriminate. Add crows. They also dominate the bird baths. I must play the University of California Division of Agriculture's tape of crow distress calls one night soon.

Wrens are busy building a nest in a small bird house under the pines on the upper bank. A California thrasher has darted from under a *Plumbago* for a treat of a peanut as he responds to my whistle.

There is a small dark bird flying from the top of one pine tree to another, I need the help of binoculars. The bird is shimmering black with a crest. It is a *Phainopepla*. It may be catching insects in flight.

California Quail

Mourning Dove

I hear the sound of quails cooing. Then I hear loud pecking from the downy woodpecker. He is at his favorite spot on the trunk of the weeping willow.

From the *Liquidambar* comes a beautiful chorus of the lesser and American goldfinches waiting for their thistle sack.

Frequently Bullock's orioles and the many hummingbirds leave their sugar water feeders for nectar and insects in *Liquidambar* and purple-leaf plum trees, pausing at the buddleia bush next to the buggy. Could they obtain enough nectar without the feeders?

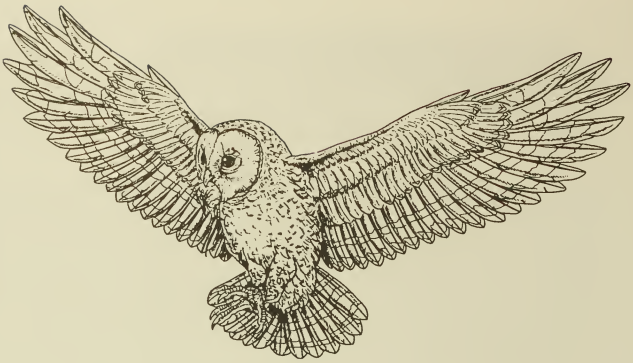
They continue on to a bank of natives and other pollinator attractors such as *Mimulus*, *Rudbeckia*, *Scabiosa*, and *Penstemon*. In walking down the pathway below the bank I see that the goldfinches like the *Lycianthes* near the pathway. Looking across the pond I see that two honeysuckle (*Lonicera*) and a *Clerodendrum* are winding their way up the trellis placed behind the park bench to provide privacy for a quiet time at the pond.

Looking the other way across the pond I see that the *Melianthus* (honey bush) hides the well and the *Crotalaria* (canary bird bush) covers the rock formation supporting the waterfalls. Bright red hollyhock (*Alcea*) standing 15 feet tall can be seen from 70 or 80 feet away as far as my rose garden. I wonder when I might see an egret again or a great blue heron standing by the pond.

I miss the pair of golden eagles regularly perched high on top of a dead eucalyptus limb. The tree has been removed, nest and all. Possibly the new neighbors were not aware of their precious cargo. Will the eagles find another home nearby?

I will listen from an open window tonight for the hoots of barn owls from their nesting box high in the tall eucalyptus tree behind my bedroom window. The owls return each year. At dusk their snowy white heart shaped faces appear, fledglings tucked below, as they survey what might become their evening meal.

A squirrel distress signal brings my attention back to reality. Several squirrels are scurrying across the driveway. I wonder which plants this family has destroyed. A six-inch stem of a tomato plant stands. Will the stem grow? No. The stem has disappeared. Organic pepper products have not been a deterrent. Our gardener, Elaine Burdon of Growing Development, has a great deal of patience in experimenting with seeds and bulbs and finding plants to attract birds and butterflies and yet not furnish dinner to the many "critters." She should write a book entitled *Plants Squirrels Don't Like*. I feel a sense of relief to know that squirrels have no interest in roses. □



Barn Owl

American Goldfinch

Downy Woodpecker

Golden Eagle

"Sunday", a mallard, who stayed at the Hamrick's pond after her family left — and her ducklings.

Helen Hamrick noticed years ago, when taking her preschool class to the zoo every week, that it was the plants that captivated her. Her serious interest continues to this day. Her garden is in Dehesa Valley, an inland El Cajon address.

THE POINT LOMA NATIVE PLANT PRESERVE OR THE POINT LOMA NATIVE PLANT GARDEN? a youthful park is looking for guidance

BY JOHN NOBLE

HAVE YOU NEVER BEEN to the Point Loma Native Plant Preserve? If you visit soon, you will experience the beginning of a magical natural transformation.

The resting sleeping hibernating landscape is peacefully waiting for its friend the rain to come and wake him up. Sometimes the rain comes as fog or sometimes she is a cool mist floating to the ground. Sometimes she dances wildly with the wind and playfully pours life-giving water onto her friend the landscape.

To watch the dance's effect on the native flora is magical. Seemingly dead branches spring new green life. The dry brown earth is almost overnight covered green with billions of young seedlings.

Rapidly flowers will appear. Bright orange and yellow poppies, blue eyed grass, yellow sunflower bushes, purple sage flowers, and hundreds of other flowers colorfully create a feast for your eyes.

The fragrance of sagebrush and ceanothus scents the air. This essence seems to be a natural tranquilizer. With deep breaths your body relaxes and tensions melt.

Visit often to watch the annual magic show change an arid summer desert like landscape into a wet winter lush paradise and then watch it slowly return to its dry sleeping state again.

Gardens and parks provide a natural balance to our busy urban worlds. The Point Loma Native Plant Preserve is a unique community park, which reaches out to the world.

It serves the locals as a nice accessible retreat. People from throughout the city can visit to get ideas for their drought-tolerant landscapes. Travelers from around the planet can come to see many of San Diego's native plants.

This wonderful city park is in its teenage years and is going through some major changes. Like a teenager, nature is a little bit independent and uncontrollable. It questions the world. Am I a preserve or a garden?

The name is only one question. There are more. Why is the park here? Who designed it? Who are the caretakers? How do you get in? What is the future of the park?

The name is symbolic. Technically, the park seems to be more a demonstration garden than a true preserve. A preserve would be a natural landscape left in its natural undisturbed state. The existing Point Loma Native Plant Preserve was actually planted during the past fifteen years in disturbed land. Previous to 1990 the city disced all the scrub and removed it to bare earth regularly for fire prevention.

The Point Loma Garden Club, originally, helped save the park from being sold and developed into apartments back in 1970. They were inspired by an Ocean Beach Ecology group, and together they stopped the sale of the land.

Movers and shakers: Beryl Wilhoite, Mary Jane Lindley, Dolly Brabant, Verlaine King, John Horton, Mary Wick, Doug King

The heroine Verlan King, from the garden club, spearheaded the movement to create a natural city park. It took four or five years of continual pressure before the city even rededicated the land as park land, thereby assuring Verlan and the club that the land wouldn't be put up for sale again. The city promised to make it a natural park.

Verlan patiently waited fourteen years and witnessed the city do nothing but repeatedly allow nonnative weeds to cover the entire site in the winter, followed by a complete harrowing of the ground in the summer. Finally in the late eighties, Verlan King and Dorothy Sprungman, representing the Point Loma Garden Club, approached the City Council and requested that the city allow the club to plant and maintain the Point Loma Native Plant Preserve. The city said to go for it.

The call for help went out to the San Diego Chapter of the California Native Plant Society. Members Andrew Pignola, Camille Ingraham, and John Horton, a landscape architect, all responded and were all instrumental in designing early plantings of the park.

By 1990 the Point Loma Native Plant Preserve was born. Verlan and Dorothy spent their lives in leading the efforts of the garden club and the outside volunteers in the creation of the park. Afterward, Mary Wick took responsibility in stride and guided the

Coastal Sage Scrub at Point Loma Native Plant Preserve

Fremontodendron mexicanum flannel bush

(continued on page 185)

TOUGH STUFF: PLANTS WITH MUSCLE©

BY PAT PAWLOWSKI

SOMETIMES, IT'S NOT EASY being a plant.

Especially in my yard.

I live in East San Diego County, an inland area that is a "hot spot" during the summer and early fall. It is not only very hot in the summer; it is also very dry, and the soil is very sandy and very lean. The property faces east. There is a whole lot of sunshine going on. There are no large trees that would mitigate the temperature of the air around and beneath them; the only large shrub that occurs naturally here is laurel sumac. (Some trees that were planted five years ago are still in the adolescent stage). In some places, rocks and boulders insolently crop up, just where I want to plant something. The ground is sloping and most newly-planted greenery needs a berm around the base to prevent water from streaming merrily away, downward toward the street. In the winter it is cold with a slight chance of frost. Adding to plant intimidation are many herbivores such as deer, squirrels, and rabbits.

It can be a harsh land.

But, in its own way, it is also very beautiful.

Anyone could see, however, that an impatiens would be impatient with the effort it takes to survive in my yard. A ruellia would ruefully admit that my land is not its land. Fuchsias — forget it.

Of course, gardeners in the possession of great amounts of greenery of a certain size and denomination would have no trouble in providing a pleasant, artificially comfortable environment for almost any plant. But as for the rest of us who live inland and who have cash that does not necessarily flow, we need to use Arnold Schwartzenegger Terminator plants; those that bounce back whenever dealt a heavy blow.

In addition, we who live inland also can learn to appreciate and attract the many kinds of fascinating wildlife (exceptions being squirrels, rabbits, deer, and some neighbors) that occur out here.

All we need to do is to grow the right plants.

Following is a partial list. However, for those who will want to know more, there is a wonderful book sold by the San Diego Floral Association. The book is called *Ornamental Plants for Subtropical Regions* by Roland Hoyt. There are gazillions of plant lists to satisfy every conceivable desire. The author's comments are wry and the headings are witty. Some plants mentioned below are taken from a section I especially like entitled "Plants to Abuse."

EXCEPTIONAL EXOTICS

Although ideally we would only use indigenous plants in landscaping, some nonnative plants are just too tempting to resist. Here are some desirable yet resilient examples:

Acacia (*Acacia* sp.) Trees and shrub-trees. Dozens of species, many from Australia. Most grow quickly and have few pests. Flowers contain nectar.

African sumac (*Rhus lancea*) Wonderful underused evergreen tree with slender glossy green leaves. Grows quickly. Tough customer; stands up to wind. However, it has a mind of its own so judicial pruning is necessary; suckers readily.

Mexican elderberry (*Sambucus mexicana*)

Butterfly bush (*Buddleia* sp.) Evergreen shrubs, many of which will enthusiastically grow into small trees if allowed. Not likely to be nibbled by herbivores. Gorgeous trusses of flowers in shades of pink, lavender, purple, white, and even yellow. Excellent nectar plant for hummingbirds and butterflies. Monarch butterflies, if passing through your yard, will likely belly up to the

Buddleia bar.

Milkweed (*Asclepias* sp.) Perennials and shrubs vital to the preservation of the inimitable monarch butterfly, which uses it as a host plant. The flowers contain nectar imbibed by many beneficial insects, especially butterflies. Seeds transport themselves far and wide by parachute-like floss. Uninformed persons may be seen pulling up what they consider to be a weed; if you happen to observe a case of milkweed abuse you are free to chastise verbally the perpetrator.

European olive (*Olea europaea*) Graceful evergreen (really evergreen gray). Entrancing, graceful form. Comes in supposedly fruitless varieties, since dropped olives can stain hardscape. Reminiscent of ancient Greece and Rome. Toga parties, while a great idea, are optional.

Hall's honeysuckle (*Lonicera japonica* 'Halliana') Evergreen vine with deliciously fragrant flowers. Good for erosion control. Nectar in flowers attracts large butterflies, hummingbirds, and a cutie hummingbird look-alike called the white-lined sphinx moth.

Red Valerian (*Centranthus ruber*) A somewhat brash perennial that may intimidate other garden greens since it reseeds with abandon. Very vigorous. Nice soft pinkish blossoms. Attracts nectar-seekers. Makes a good cut flower if your nose doesn't get too close to it.

Lavender (*Lavandula* sp.) Perennials — many varieties. Most are fragrant and provide nectar for beneficial insects and others.

Rosemary (*Rosmarinus officinalis*) Needle-leaved evergreen shrubs to have and to hold back soil. Use tall forms as hedges. Many varieties called prostrate actually grow several feet in height, high enough in my yard to shield ground-dwelling birds from predatory hawks. Hummingbirds and insects enjoy the nectar in rosemary's tiny blue flowers; you will like the flavor of rosemary leaves in stew and chicken dishes. Rosemary likes well-draining soil.

NATIVES, NATURALLY

If you intend to install California natives in your landscape, be sure that the plants you buy are indigenous or amenable to your particular area. Some natives need specific conditions to thrive; others are not particular at all. It might be a good idea to contact or visit a native plant nursery such as Las Pilitas Native Plant Nursery in Escondido or Tree of Life Nursery in San Juan Capistrano. Meanwhile, here are some easygoing natives to consider:

Laurel sumac (*Malosma laurina*) Large evergreen shrub that can get to be 15 feet high. Can be trained as small tree. Extremely tough, but will accept some water. Rapid growth. Only drawback is dieback; but trimming and pruning is good exercise. Looks good all year. Seeds and berries eaten by birds.

Sugar Bush (*Rhus ovata*) Large evergreen shrub, smaller than laurel sumac, handsome year-round. Refreshing though nonalcoholic drink can be made from berries.

Hollyleaf cherry (*Prunus ilicifolia*) Shrub or small evergreen tree. Slow growing but worth waiting for; berries feed birds.

Mexican elderberry (*Sambucus mexicana*) Deciduous small tree or shrub with clear green leaves and tiny sweet-smelling flowers that produce small blue edible berries eaten by birds and people alike. Berries also can be made into a scrumptious drink. It is hard to kill an elderberry; last year's disastrous fire burned mine, but given some time and water, it recovered nicely. An exception to most of the other plants listed here, elderberry likes water. And it deserves to get as much as it likes.

Encelia farinosa (*Incienso*) Small shrub with silvery white leaves and pretty yellow daisylike flowers. Butterflies like the nectar.

California fuchsia (*Epilobium canum*) Small herbaceous perennial with explosively colored red-orange flowers beloved by hummingbirds.

Penstemon (*Penstemon* sp.) Perennials with flowers of blue or red or purple; all meet with the hummingbird seal of approval.

Buckwheat (*Eriogonum* sp.) Woody perennials and subshrubs good for erosion control and invaluable to wildlife, especially birds, butterflies, and beneficials. Flower heads small and creamy white, turning to an interesting rust color. Not a polished-looking plant, but dependable. A good accent in the natural garden.

Sage (*Salvia* sp.) Many different kinds of shrubs, subshrubs and groundcovers. Many are beautiful when in bloom, and flowers are hummingbird magnets. Leaves are generally aromatic. Foliage not eaten by deer or other herbivorous hoodlums.

IN THE LAND OF HARD KNOCKS

If you will, remember that although your plant environment — and indeed some of your plants — may not be perfect, neither are you. Appreciate the good and disregard the bad. Make it easy on yourself and use low-maintenance, sturdy plants that will eventually reward you by bursting into beautiful bloom or enticing birds and butterflies; plants that, if pressed (not literally — although you could), can "hang tough". □

Text copyright by Pat Pawlowski, who is a writer/lecturer and the wildlife garden designer for Animated Gardens, 619-390-9399.

Photograph by Mary Wick.

A CHRISTMAS ADVENTURE WITH AN ECKE ICE PINK POINSETTIA

BY VIRGINIA MAPLES INNIS

DURING THE CHRISTMAS SEASON of 2003 there were many reasonably priced ice pink poinsettias on the market. They were developed at the Ecke Ranch. It brought back memories of when the plant was in development over thirty years ago.

AN INTRODUCTORY SPRING ADVENTURE

In the early 1970s, the San Diego County area known as Palomar District of California Garden Clubs was host to the California Garden Clubs, Inc. state convention at Hotel del Coronado. It was springtime. As leader of all the Federated Garden Clubs in the area, I was a director on the State Board and official hostess to the convention. Dr. William Penn Mott was head of parks in California. He knew my architect husband and as a favor to him Dr. Mott agreed to be the convention keynote speaker.

I arranged to have Dr. Mott appear on channel 6 in a live program broadcast out of Tijuana. He was to appear on television in the day and to give his keynote speech that night.

I had promised to be at the TV station for Dr. Mott's appearance. I left the convention, drove down the Silver Strand to reach Mexico, and went to Tijuana as I had promised the TV station that I would.

I was on time at the TV station. Dr. Mott was not. Employees of channel 6 were very anxious. They said that if Dr. Mott didn't arrive, I would have to take his place on the program. Not having been on TV before, this was a frightening expectation.

Everyone got into position for the program to

broadcast. It was explained that when it started to broadcast, the red light would be on the camera. The TV camera intimidated, but there was a host for the program.

The station was high in the Tijuana hills. About two minutes before broadcast time, Dr. Mott arrived at the station. He related how his driver got lost in the hills and how he, himself, had gotten out of his car to get directions to the TV station from some school children.

With seconds to go, everyone insisted that I stay on the program for the broadcast and that is what occurred, but what a relief to have Dr. Mott there to do the interview. After the broadcast, the station asked if I would come back in December and give the station a free flower arrangement segment for a program to be taped to be broadcast on Christmas morning. Somehow they learned that I was a flower arranger who did programs. How could I say anything but "Yes"?

A BEAUTIFUL NEW PLANT

A date was set for many months ahead. When the time arrived, I was well prepared, but a day or so before that date, I went to the Ecke Poinsettia Ranch in hopes of getting an exciting poinsettia plant to show on the program. I explained my problem to Paul Ecke, Jr., and he showed me the plants under development. There were exciting new plants with new forms and colors. I fell in love with an ice pink poinsettia that had to be the most beautiful flower I had ever seen. They had only three of the plants. I wanted that plant!

TAKING CHANCES WITH A PLANT

Paul Ecke, Jr. called his father. While I waited in my car, they had a conference out of my hearing. I had explained that I wouldn't have time to go through the Department of Agriculture to get a permit to take the plant out of the country and return with it. If the plant was seen on my return to the USA, it could be confiscated at the border! They agreed the plant could go, and after the conference, they brought the plant to me. They were good-hearted, sharing men, who were proud of their plants.

PLANS OF MICE AND MEN AND VIRGINIA

The day arrived to tape the program. At the right time, everything was packed into a station wagon. The baby sitter arrived and reported a sudden death in her family and that she could not, at that time, baby-sit my three children under ten years of age!

There wasn't time to do anything except place the children in the station wagon with all the materials; with three children and an ice pink poinsettia, we started toward the border.

At the Tijuana TV station were several Disneyland characters in costume. They were to be taped for the same Christmas program. A young man in the Pluto costume saw my plight and volunteered to entertain the children while I taped my segment of the program.

The program was taped and everything went back to the station wagon. The ice pink poinsettia went under a sheet. We passed inspection at the border. The Eckes would get back the heavenly pink poinsettia.

ALL'S WELL THAT ENDS WELL

The next morning the ice pink poinsettia went back to the Ecke Ranch. I practically ran toward the Ecke men, pink poinsettia in outstretched hands! How nice to return the plant, but better still how nice it was to have shared the plant. Paul Ecke and Paul Ecke, Jr. are both gone now. They gave the world a lot of beautiful poinsettias. The colors and sizes the Eckes have given is impressive. Possibly none of the developed plants had more adventure than the ice pink poinsettia!□

Virginia Innis is member of the Flower Arrangers Guild and is a National Council of State Garden Clubs design instructor emeritus.
Photograph by the Poinsettia Growers Association.

Now Is the Time . . .

A CULTURAL CALENDAR OF CARE FROM OUR AFFILIATES, UC COOPERATIVE EXTENSION, AND *CALIFORNIA GARDEN* STAFF

AFRICAN VIOLETS
Barbara Conrad

NOW IS THE TIME

TO WATCH for insects that may thrive on other plants or cut flowers in your home. African violets are sensitive to traveling insects that may not be visible to the naked eye. A magnifying glass is helpful if you suspect something is wrong with your plants. Try keeping violets in a room by themselves.

TO CHECK the growth of plants. Pots should be one-third the width of the plant. A smaller plant needs to be potted down. A larger plant needs to be potted up to the next size container. *Helen van Pelt Wilson's African Violet Book* describes it as a "tight shoe"!

TO TRANSPLANT always use fresh soil mix as nutrients diminish with age. The old soil may be tossed in your outdoor garden.

TO WATER African violets use only warm water, preferably distilled. Hot or cold water can be shocking to the plants.

BEGONIAS
Margaret Lee

NOW IS THE TIME

TO CLEAN up all debris—remove dead leaves and spent blooms.

TO WATER as needed.

TO PUT a top dressing of your favorite mulch around plants to replace any soil or mulch washed away by fall rains.

TO GIVE a light feeding several times a month to help the plants withstand any adverse conditions a little better.

TO SPRAY for mildew control.

TO ALLOW tuberous begonias to die back on their own, put aside and let rest but sprinkle occasionally.

TO BE VIGILANT for insects; spray for mealybugs and other pests.

BONSAI
San Diego Bonsai Club

NOW IS THE TIME

TO REDUCE watering, deciduous trees require just enough to keep them from drying out.

TO MOVE plants into shade if a hot spell occurs. Avoid a second growth period during this time—it will weaken the trees.

TO REFRAIN from fertilizing or transplanting at this time.

TO KEEP deciduous trees protected from sudden changes of temperature.

TO REMOVE any old leaves, fruit, or seeds from deciduous trees.

TO PRUNE black pines by cutting the candles about half length.

TO GRAFT conifers in December.

BROMELIADS
Mary Siemers

NOW IS THE TIME

TO STOP fertilizing during fall and winter months, except those that are kept in a greenhouse.

TO REDUCE the frequency of watering when weather turns cooler.

TO PROTECT your plants from hail damage during the rainy season by providing overhead protection such as shade cloth that will allow plenty of light.

TO PROTECT plants from freezing temperatures by covering with sheets of newspaper.

TO KEEP plants clean by cutting spent blooms and dead leaves with scissors.

TO SPACE plants apart to allow air circulation. This helps to prevent scale.

CACTI & SUCCULENTS
Joseph A. Betzler

NOW IS THE TIME

TO WATCH your plants. Most cacti and succulents have a dormancy period. Depending on the weather, many winter growers may start early growing.

TO FERTILIZE the plants that are actively growing.

TO WATER only in the morning on a day that is going to be warm. By doing this, no standing water will be on plants in the evening.

TO PROTECT tender plants from excessive cold and winter rains. Repair cracks and leaks in shelters before the rains arrive.

TO KEEP ants under control; they transport aphids and mealybugs.

TO REMEMBER that the growth of fungi and bacteria can be fostered when plants become too cold during the cold evenings.

TO START looking for winter growing succulents to add as an extra dimension to your collection.

TO CLEAN up your plants' growing area.

CALIFORNIA NATIVES
Jeanine De Hart

NOW IS THE TIME

TO SUPPLEMENT the rain with deep watering as the roots are growing vigorously.

TO MAKE root cuttings of Matilija poppy (*Romneya coulteri*). There are good directions for this in September-October 2001 issue of *California Garden*.

TO SOW seed for spring blooming wild flowers. Continue sowing seeds over the next two months in order to prolong the bloom.

TO MULCH your beds with leaf drop as long as the leaves are not infested with insects. Do not remove the leaf litter under oaks as it helps to keep the roots cool as well as enriching the soil.

TO CONTINUE to plant your newly purchased natives into the ground. Keep in mind the ultimate growth and do not plant your natives too close together.

CAMELLIAS
Jay Vermilya

NOW IS THE TIME

TO FEED monthly (Sept-Jan) with a 2-10-10 or 0-10-10 fertilizer to encourage bud development.

TO CONTINUE disbudding if larger but fewer blooms are desired.

TO PICK up all old blooms to prevent petal blight.

TO ENCOURAGE dark green leaves by feeding an iron supplement.

TO SPRAY if necessary for mites (miticide) and worms (malathion). Alternatively, Orthene can be used for either.

TO KEEP a regular watering schedule, never let a plant dry out—maintain an even, moist, but not wet, condition.

TO PRUNE selectively to ensure buds have room to open without interference.

DAHLIAS
Abe Janzen

NOW IS THE TIME

TO WITHHOLD water and fertilizer to let the plants go dormant.

TO ALLOW plants to dry—when brown about 12-inches from ground, cut off the stalk.

TO LEAVE tubers in the ground to harden off if there is good drainage. Otherwise lift roots before the heavy rains.

TO WASH clumps after digging, let dry a few hours before storing. If dividing tubers, treat cut area with soil sulfur, store in vermiculite, sand, or other medium. Store out of the weather. Be sure tubers are tagged before storing.

EPIPHYLLUMS
San Diego Epiphyllum Society

NOW IS THE TIME

TO WITHHOLD fertilizer, especially one with nitrogen. Allow the plants to become semi-dormant.

TO WATER sparingly, but do not allow plants to dry out completely.

TO PROTECT plants from exposure to the elements. Frost, hail, and strong winds can cause irreversible damage. Overexposure to harsh winter sunlight can be as detrimental as hot summer sun.

TO TIE or stake long branches so they will not break when winds and rain arrive.

TO CHECK for snails and slugs; a few granules of Sluggeta at the base of the plant are often effective and leave little to no residue.

TO MAINTAIN good grooming and prune out nonproductive branches to conserve plant energy.

FERNS
San Diego Fern Society

NOW IS THE TIME

TO CHECK containers to ensure planting mix has not completely broken down; add more mix to containers that need it.

TO BE ALERT for insects. Slugs and snails are very active.

TO WATER if it does not rain. Check plants not reached by rain.

TO APPLY a weak fertilizer solution once more before the December rest period.

TO PLANT spores and keep in a warm area.

TO CLEAN out weeds, oxalis, and debris from pots.

TO PROTECT plants at night in frost areas. Cover with newspaper or old sheets or place in garage.

FRUIT TREES AND VINES
Vincent Lazaneo, Hort. Advisor, UC Coop Extension

NOW IS THE TIME

TO PRUNE deciduous trees and vines after their foliage has dropped. Wait until early spring to prune evergreens.

TO SPRAY dormant deciduous trees and vines with horticultural oil to kill scale, insects, spider mites, and other over-wintering pests.

TO SPRAY peach and nectarine trees with a fungicide such as lime sulfur (calcium polysulfide) to control leaf curl.

TO ORDER bare-root trees and vines to plant in December or January.

TO PROVIDE frost protection for young citrus and other subtropical fruit trees.

FUCHSIAS
William Selby

NOW IS THE TIME

TO ALLOW plants to rest; reduce or stop fertilizing.

TO DO heavy pruning in mild areas or in a greenhouse; can make cuttings if a good tip available.
TO CLEAN up. Remove all dead leaves, blossoms, and debris from pots and baskets and around plants in the ground.
TO WATCH for insects, molds, and fungi in warmer areas.
TO MULCH plants left outside in areas where there is danger of frost; move baskets under cover for protection.

GREEN THUMB
Editorial Staff

NOW IS THE TIME

TO FEED bird of paradise. Cut out dead growth from clumps to improve appearance.
TO PLANT bulbs for spring blooms—daffodils, narcissus, ranunculus, anemones, scillas, callas, tulips, and hyacinths.
TO PRUNE and shape holly and pyracantha when cutting berries for holiday decorations.
TO APPLY dormant spray in December to control pests and disease next year; to use snail and slug bait regularly.
TO ENRICH your soil, prepare now for bare-root planting in late December and January.

HERBS
John Noble

NOW IS THE TIME

TO SEED calendula, borage, nasturtium, and chickweed directly in the ground.
TO PLANT garlic and saffron bulbs.
TO LANDSCAPE with native medicinal plants including elderberry, white sage, black sage, sagebrush, yerba mansa, mugwort, and wild rose.
TO DRY leaves of bay, basil, lemongrass, ginkgo, oregano, and sage.
TO COLLECT chaste berries, coriander seed, and fennel seed.
TO COOK holiday meals using lavender, bay, juniper, artemisia, rosemary, and rose hips.
TO CREATE herbal gifts such as tea blends, vinaigrettes, and live herb baskets.

IRIS
San Diego/Imperial Counties Iris Society

NOW IS THE TIME

TO CLEAN beds of dead leaves and weeds; aphids winter-over in debris-filled areas.
TO SPRAY for aphids or give a light feeding of a systemic to control all sucking plant pests.
TO MAKE a final planting of bearded types, spurias, Louisianas, and Siberians.
TO PLANT bulbous type iris—Dutch, English, and Spanish for spring bloom.
TO MOVE and replant Pacific Coast natives in late December when the little white roots are showing. Water well until they are established.

ORCHIDS
Charles Fouquette

NOW IS THE TIME

TO FEED a dilute solution of (25%) of 30-20-20 fertilizer each regular watering to *Oncidium*, *Brassidium*, and *Miltonia* hybrids planted in bark. If grown in an inorganic medium, then use 18-18-18. Rates given are guidelines and may be adjusted as needed for various mineral supplements. *Cymbidiums* get a 30-20-20 fertilizer (Adjust as above). Feed *Cattleyas* a 25% solution of 18-18-18 regularly or full strength every 3-4 waterings.
TO PROTECT *Cymbidium* buds and flowers from hail, rain, or sun damage. Once a spike starts do not rotate plants.
TO REPOT *Cattleya* if in active new growth and growing out of the pot. Otherwise, wait until a warmer time. Some yellow hybrids require repotting when dormant.
TO LET deciduous *Dendrobiums* go dormant. Stop feeding when leaves drop. Start feeding and watering in spring with 18-18-18 when buds start to swell. Flower buds should develop during last part of dormancy.
TO CLEAN up old leaves, flowers, and other "trash" in growing areas. Remove and store shade cloth. Clean and check all parts of swamp coolers, humidifier, heaters, and fans.

PELARGONIUMS (GERANIUMS)
Carol Roller

NOW IS THE TIME

TO WATER thoroughly when plants become somewhat dry. Watering will not need to be done as often as in the warmer seasons. Allow the excess water to drain away. Keep the foliage as dry as possible.
TO CONTINUE feeding as needed. Do not allow plants to show prolonged signs of nutritional deficiencies. Use a balanced fertilizer that can be dissolved in water. Soilless mixes need fertilizer containing micronutrients.
TO CONTINUE a pest control and disease prevention program, using all products according to the manufacturers' direction.
TO PRUNE any plants that have not been cut back. At least one green leaf should remain on every stem of regals, scenteds, and similar types. Lanky plants that were pruned in the fall can be cut again to produce compact plants.
TO MAKE cuttings from the prunings. Shelter cuttings from extreme temperatures. They will root faster in a warm location.
TO PINCH the rest of the plants that were pruned in

the fall.

TO GIVE plants temporary shelter if the temperature approaches freezing.

TO ROTATE plants on a regular basis in order to keep them well shaped.

PLUMERIA

Southern California Plumeria Society

NOW IS THE TIME

TO PREPARE your plumerias for winter.

TO GIVE LAST FEEDING of high phosphorous fertilizer. Hold back nitrogen, e.g., 6-20-20 or 10-60-10.

TO GIVE FINAL GROOMING by removing dead flowers and leaves from the branches and base of plant.

TO CHECK for overwintering insects and take necessary action.

TO PROTECT from cold and wet environment.

TO REDUCE watering volume with the onset of cold weather and loss of foliage.

TO POSTPONE transplanting and taking cuttings until spring.

ROSES

Marianne Truby

NOW IS THE TIME

TO RENOVATE your rose garden by deep-digging the area around individual bushes and incorporating organic amendments prior to fall rains. Remove roots of trees and shrubs that have been robbing your plants of water and nutrients.

TO PREPARE list of replacement and/or new varieties you wish to purchase from lists of incoming bare-root plants available at your local nurseries. If you have limited space, you may wish to put off purchasing newly introduced varieties until they have been grown in your locale.

TO ENJOY fall blooms that are frequently outstanding depending on weather conditions.

TO REDUCE amount of water but do not allow bushes to become too dry if fall rains do not occur.

TO REMOVE bushes no longer producing. Prepare new planting holes by adding amendments and superphosphate to existing soil to give bare-root roses a good growing medium.

TO PRUNE floribundas in late December but delay pruning hybrid teas until buds begin to swell in January or early February. Consult rosarians in your locale for best date.

TO CLEAN up entire rose bed and dormant spray once before pruning and again after pruning before buds leaf out.

TO PREPARE for pruning by checking your equipment. Proper equipment, clean and sharp, will make the job easier. Don't forget the gloves and knee pads.

VEGETABLES

Vincent Lazaneo, Hort. Advisor, UC Coop Extension

NOW IS THE TIME

TO REMOVE and compost warm-season vegetables to prevent pests and diseases from overwintering on them.

TO CONTINUE planting cool-season vegetables that will not be subject to frost injury.

TO PLANT seeds of short-day onions, such as 'Grano', 'Granex', or 'Crystal Wax', and garlic cloves in November for bulbs next summer.

TO PLANT dormant crowns of artichoke, asparagus, and rhubarb. To avoid crown rot of rhubarb, plant crowns in containers filled with porous potting soil and transplant into garden where drainage is good after several leaves have developed.

VEGETABLES, ANNUALS

from UC Cooperative Extension Publications

NOW IS ONE OF THE BETTER TIMES IN FROST-FREE AREAS

TO PUT IN TRANSPLANTS OF: broccoli, cabbage, and cauliflower — California natives, cineraria, columbine, fairy primrose (*Primula malacoides*), garden stock (*Matthiola incana)*, hollyhock, Iceland poppy, ornamental kale, pansy, pink sand verbena, pot marigold (*Calendula*), snapdragon, and viola.

TO PUT IN SEEDS OF: beets, carrots, chard, kale, kohlrabi, lettuce, onion (green and dry), parsnips, spinach, and turnips — baby blue eyes, California natives, candytuft, Chinese forget-me-not *(Cynoglossum amabile*), forget-me-not (*Myosotis sylvatica*), lupine, sweet alyssum (*Lobularia maritima*), spring flowering sweet pea, and Virginia stock (*Malcolmia maritima*).

WATER GARDENS

David Curtright

NOW IS THE TIME

TO CLEAN UP. At this time most of the plants in the pond are beginning to lose leaves, set seeds, and generally decline. As this happens, dead foliage and flowers should be kept out of the water so that they do not feed algae later. If you have lotus, remember not to cut the leaf stems below the water line.

TO FREE Louisiana irises from the summer overgrowth of other plants so that they can put on their new leaves as we go into fall.

TO BE ALERT for moth larvae eating your bog plants and lilies.

TO WATCH for and encourage hawthorns that are beginning to reappear.

WATER SAVINGS FOR THE HOLIDAYS

BY LUIS GENEROSO

SAN DIEGO — WHAT DOES water have to do with the holidays? Water impacts everything from food preparation to the clean up process. A typical holiday turkey dinner for eight needs more than 42,000 gallons of water in food growth and preparation. That is enough water to fill a 30 ft. by 50 ft. swimming pool. To clean up before and after holiday visitors and the associated large meals, appliances —such as dishwashers, clothes washers, and fixtures like showers and toilets—will be used more often. However, there are ways to minimize utility bills while being host to out-of-town guests for the holidays.

"You can do your part in conserving water without having to compromise convenience and comfort during the holidays," said Chris Robbins, Supervising Management Analyst with the City of San Diego Water Conservation Program. "The solution is simple: integrate water-wise behaviors into your daily routine and take advantage of available resources. In the long run, you'll be improving your quality of life beyond special occasions."

Take charge of your water usage by encouraging water-wise behaviors and setting an example for your guests. Here are some easy to implement water-saving tips:

Food Preparation

- Save 60 gallons a week by scraping off food scraps into the garbage can.
- Save 50 gallons a week by defrosting frozen food in the refrigerator the night before it's needed instead of running hot water over it the same day.
- Save 30 gallons a week by rinsing vegetables and fruit in a sink or pan filled with water instead of under running water. As a double bonus, use this water on houseplants.

Appliance Usage

- Save 100 gallons per week by hand washing dishes at least once a day, using less detergent to cut down on rinsing.
- Save 30 gallons a week by running a full load in the dishwasher.
- Save 100 gallons per week by doing only full loads of laundry.

Bathroom

- Save 230 gallons a week by replacing your regular showerheads with low-flow showerheads.
- Save 350 gallons a week by using an ultra-low flush toilet model.
- Save 50 gallons a week per person by having a bucket ready to capture cold water while waiting for hot water. Use it to water plants or run the garbage disposal.

Another way to minimize utility bills and prepare for your holiday guests is to take advantage of City sponsored programs and services available to residents at no cost. For example, the City of San Diego offers vouchers for purchases of ultra-low flush toilets and high efficiency clothes washers. The City also offers free services like the landscape watering calculator or residential water survey program, which can help to lower your utility bill as well.

Services and Programs

- Save up to $75 on the purchase of an ultra-low-flow toilet that uses 60 percent less water than regula toilets and saves up to 2.5 gallons per toilet flush.
- Save up to $125 on the purchase of a high efficiency clothes washer that uses 40 percent less water and 55 percent less energy than regular washing machines, and also reduces drying time by 50 percent.
- Reduce outdoor water usage by accessing the online Landscape Watering Calculator. This easy-to-use tool is designed to produce a customized weekly schedule for the optimum amount of water that plants need each month of the year.
- Reduce the daily water consumption by participating int the Residential Water Survey Program. This program provides a complete interior and exterior water usage analysis, a check for leaks, the installation of water saving devices, as well as water-efficient landscape and irrigation recommendations.

Your houseguests may come and go, but your usage of water is a daily occurrence. By building a foundation of water efficient behavior and eliminating water waste, you can same money on your utility bills while making conservation a part of your life. □

Luis Generoso is the Water Resource Manager of the City of San Diego.

ASK ANY CHILD (ABOUT WORMS)

BY MORT BRIGADIER

THE MARCH RAINSTORMS DROVE a large number of worms out of the ground and onto the roadways of the back county. One of my students was enthralled. "Look at the woims," he said. Not "woims" I said, "**worms**." "Well," he responded, "they sure wiggle like woims."

Alas, many wiggling worms died on the roadside when the sun broke through the clouds. It is only a rumor that worms can't swim. They come out seeking air. If exposed to the sun for any length of time, however, if they fail to wiggle back into the soil, they dry up and die.

Very carefully, the children and I scooped up as many worms as we could. We gently moved them off the roadway, into the brush, and covered them with leaves. I explained that worms need darkness, garbage to eat, and a dry place to burrow. Although "blind" they will eat anything in sight, turning trash and garbage into priceless compost. We stood over them playing "shade man" to protect them from the sun. I don't know how many made their way back into the soil.

Worms are engineering marvels. They are known to reduce heavy metals in soil. They make a "bad soil" good and a good soil better. They can effect a change in both the **structure** of the soil and the **texture** of the soil. They change the structure of the soil by excreting castings to bind the particles of soil into soil aggregates. They improve the texture of the soil (the sand silt and clay) by burrowing, tunneling, and aerating the soil making even the heaviest soil more friable (workable).

Naturalists agree that fertilizing with worm castings provides the best (and perhaps the only) food most plants will ever need. Worm aficionados call it nature's organic "insecticide."

But worms will not venture into a garden where the land has been stripped of top soil, cleared by bulldozer, compressed by construction equipment, or rendered impotent with herbicides. Unlike space travelers, worms will not go where no worm has gone before.

While worms might be reluctant to visit or stay in your garden, they have no choice over where you spread their castings. Dixieline, and other similar stores, sells sterilized worm castings under the brand name, "Worm Glow." It's great for fertilizing your pots, gardens, and landscape, and for making worm tea. [Editors note: four ounces of worm castings in a cheesecloth bag, left to soak in a gallon of water for 24 hours, will give you a medium strength worm tea.]

But if you want castings with the chance of also getting some bonus worm eggs and larvae, you can buy "live" worm castings in bulk from the Williams Worm Farm in Lakeside, phone: 619-443-1698.

Better yet, buy a pound of garden worms and make your own compost in a box conveniently placed in a shady spot outside the kitchen door (where they can be easily fed the kitchen wastes, junk mail, old love letters, shredded cardboard, crushed egg shells, etc.). Please no greasy stuff, mayonnaise, meats, or chicken skins!

Don't waste money on a commercial worm bin. Make your own. A plastic file box and a shredded Union-Tribune for bedding (or North County Times), make a good lightweight worm bin. Buy two file boxes with tight fitting lids; worms need a dark environment. Drill lots of air holes on all four sides as well as worm exit and entry holes on top and bottom of each box.

If you stack one box on top of the other, after the worms consume everything in the top box they will migrate down through the worm holes to find the food and bedding you provided in the lower box. Simply harvest the castings and rotate the boxes.

"Worms love to run away from home," cautions landscape designer (and garden writer, lecturer, Habitat Steward, teacher) Connie Beck Crusha. "Put the worm box up on bricks so the worms can't escape, and keep the box very moist. Worms like it better than you would believe." She lines her worm boxes with fiberglass window screen fabric. The only place the worms can escape is from one box to the other.

Vermiculturist Dan Kuhn told a meeting of the San Diego Floral Association a great story about a couple who kept their worms under the kitchen sink, making it easier to feed them kitchen scraps. All went well until they returned home and discovered that they forgot to feed the worms before they went away. They returned to find that the worms had escaped inside the cupboard in search of food.

If you need additional help with your worm bin, ask any elementary school child about worms.□

"Mr. Mort" is a Master Gardener and a Habitat Steward. He gardens with children at Magnolia Elementary School and with active seniors at La Vida Real.

Book Reviews

ON THE WILD SIDE: Experiments in the New Naturalism
Keith Wiley
Portland, Timber Press, 2004, 256 pages, 202 color photos, 6″ x 9″, hardcover, $34.95

A deep awareness of his native Somerset countryside inspired this author to use natural settings as the inspiration for his career as Head Gardener at the Garden House in southwest England. He stepped into this position directly from college, but his appreciation for natural landscapes was furthered by travels to Crete and South Africa as well as North America...and even California! This is the rare British import that relates to conditions all over the world.

Wiley's basic premise is to use plants as they are found in their natural habitats, combining human need to create order with an understanding of ecology and plant communities. Writing with wit and joy, the author is enthusiastic but precise in his explanations of the how-to as well as the why-do-it. He offers a good read along with much very good advice.

For example, stone as a background for plants, especially wildflowers, is a simple element that he suggests for creating a natural landscape, as is the use of plants that self-seed to create density of color and texture. Chapters on bulb meadows, deserts, mountains, and coastlines all contain beautiful color photos of natural landscapes and their counterparts in garden landscapes, particularly in England and South Africa. Before and after views illustrate the author's depth of imagination, and understanding of natural settings, and also should prove inspiring to the reader.

Recognizing the difficulty of visualizing a garden where no plants exist, Wiley suggests the placement of perennials as primary elements, around and between which, self-seeding and spreading annuals, bulbs, grasses, and rocks can be introduced. He also reminds the reader that green is not the only shade to be desired in a garden; he relishes the grays and tans of the wild desert and drought-tolerant areas. Forest and water, be it pond or stream, are other natural features he values.

In general, the reader is encouraged to work with what is at hand, but shaping the land is often required to bring it into harmony with surrounding areas. The author suggests several simple and practical methods, such as forming a quick draining berm by putting a layer of sand over a compost base.

Reviewed by Marge Howard-Jones

UNCOMMON FRUITS FOR EVERY GARDEN
Lee Reich
Portland, Timber Press, 2004, 308 pages, 51 color photos, 29 line drawings, 6″ x 9″, hardcover, $24.95

The "every garden" in this title refers primarily to gardens of the four season variety, since nearly all the fruits described require cold winter. The author gardens in New York and offers much interesting information about the history, cultivation, and uses of twenty-three genera, with many species and varieties. Some, like kiwis and persimmons, may be the most familiar to local readers and others, like mulberries, currants, and jujubes, will grow in parts of Southern California but, for the most part, this book is oriented to gardening in other climates.

That being said, it is well written and easy-to-read, the line drawings illustrating each chapter are very handsome and there are nice color photos in the center of the book. This reader found the chapter on medlars most interesting, as this is a fruit often mentioned in the literature of the Middle Ages and, according to the author, has the taste and texture of a baked apple. Alas, it needs a sunny location in Hardiness Zone 5 or lower!

Reviewed by Marge Howard Jones

CALIFORNIA NATURAL HISTORY GUIDES

These recently updated guides are part of the series originally written in 1964. These books are scientifically accurate guides yet accessible for a broad range of readers. The names used correspond to the *Jepson Manual: Higher Plants of California*. In these guides the chapter headings and the pages are color coded. One finds: Whitish Flowers (white to pale cream, pale pink, or greenish white), Reddish Flowers (rose to purplish red or brown), Bluish Flowers (blue to violet), and Yellowish Flowers (greenish yellow or yellow to orange). All three are published by the UC Press, Berkeley, are 4½″ x 7¼″ in size, are softcover and each priced at $16.95

INTRODUCTION TO CALIFORNIA SPRING WILDFLOWERS OF THE FOOTHILLS, VALLEYS, AND COAST

Philip A. Munz

Published 2004, 302 pages, 249 color photos, 80 line drawings, 2 maps

The Pacific Coast, well over 1,000 miles long, has many diverse habitats. One finds sandy beaches, marshes, prairies, riparian woodlands, and coniferous forests. These habitats are all represented with some 268 species shown in color photos and line drawings. The book is a perfect guide to pack for a plant-looking day or a holiday on the coast anywhere in California or the Pacific Northwest.

INTRODUCTION TO CALIFORNIA DESERT WILDFLOWERS

Philip A. Munz

Published 2004, 226 color photos, 111 line drawings

In this newly revised Munz wildflower book for which Dr. Robert Ornduff wrote the introduction, he describes the environmental factors that shape the desert habitat, and discusses some of the adaptive strategies that allow plants to survive in the harsh extremes of that setting. This is a terrific guide to take along on those spring desert wildflower trips.

INTRODUCTION TO SHORE WILDFLOWERS OF CALIFORNIA, OREGON, AND WASHINGTON

Philip A. Munz

Published 2003, 234 pages, 181 color photos, 180 line drawings

In the introduction of this book, Dr. Robert Ornduff states that the region covered by this guide has a mediterranean climate with a low annual rainfall and a prolonged summer drought. The spring season, however, does bring us "vivid green hills and showy displays of colorful wildflowers that cannot be seen anywhere else in the United States."

You'll want to take this easy to use and scientifically up to date guide with you next spring when you go wildflower exploring.

Reviewed by Susie Heap

VANDAS: Their Botany, History and Culture

Martin R. Motes

Portland, Timber Press, 2004, 188 pages, 113 color photos, 6″ x 9″, softcover, $19.95

First noted by seventeenth century Europeans traveling in the Far East, *Vanda* orchids were not cultivated in the Old World until British horticulturist Joseph Banks brought one to flower in his "stove", a darkly painted greenhouse heated by furnaces in what the author describes as "a misguided attempt to reproduce tropical conditions." Subsequent species discoveries and developments continued until the mid-twentieth century. It was then that the vanda's color and fragrance began attracting the interest of *Cattleya* growers, who were soon pleased to discover the genus's vigor, ease of cultivation, and freedom from pests. Now, there is concern that the native habitats of these glamorous plants are threatened by logging and agriculture. Also noted is the decline of interest in certain species, and the introduction of hybrids that tend to crowd out the cultivation of the parent species.

The folio of color photos in the middle of this book illustrates the unique beauty of vanda orchids. They are presented in historical order, beginning with the first species encountered by westerners and continuing through the years as others were found. Captions describe the elements that relate various species to each other and that identify them as a particular species or variety. There is a wide range of forms and colors, from mauve through pink to yellow. Other photos are of molds, fungi, and other stressful conditions.

The text is full of horticultural information that vanda orchid enthusiasts, present and future, will find useful. For those of us with memories of vandas as the prom corsage of choice, it is a treat to become better acquainted with these lovely plants.

Reviewed by Marge Howard-Jones

DESIGNING AN HERB GARDEN

Beth Hansen, Editor

Brooklyn, Brooklyn Botanic Garden, Inc. 2004, 120 pages, 90 color photos, 6″ x 9″, softcover, $9.95

This small book has much to offer. There are lots of pictures to inspire you to add herbs in some manner to your garden. Many of the ideas are simple, attractive, and could easily be started and finished. Plans included are for a culinary herb garden, teatime herb garden plotting the garden using the shape of a teapot, a gray and green mediterranean herb garden (using drought-tolerant plants combined with rocks), a potted herb garden, a garden of shade loving herbs, fragrant herbs, or herbs for butterflies.

This book may be purchased at your bookstore or you will receive it as part of a membership to the Brooklyn Botanical Garden. Members receive three guides each year. The earlier two this year were *The Best Orchids for Indoors*, *The Gardener's Guide to Growing Orchids*.

Reviewed by R. Cox

KATE SESSIONS BOOK

The complete collection of writings by Kate Sessions in *California Garden* magazine from 1909 until 1939 is available at the San Diego Floral Association in Room 105, Casa del Prado, Balboa Park. This book contains a plant index, and many changes in plant names, particularly scientific, have been noted. Often known as "The Mother of Balboa Park," Kate Sessions for over fifty years devoted her life to helping people grow beautiful plants in San Diego. She tells how in this book.

ROLAND HOYT BOOK REPRINT

Ornamental Plants for Subtropical Regions by Roland Stewart Hoyt has been reprinted by his sons. This book has been available only at rare book stores until now (going rate $65). Bill and Mike have donated the new books to San Diego Floral Association. Ten dollars of each book sale will be added to the scholarship fund established in the name of Ethel and Roland Hoyt. The books are available at office above.

Half the book is a written description and sketch of each plant. In recent years, many scientific names have been changed, but there is an updated nomenclature at the end of the book.

The Complete Writings of Kate Sessions 1909-1939

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San Diego Floral Association, 1650 El Prado, San Diego, CA 92101-1622 [in Casa del Prado, Balboa Park]

"POINT LOMA PLANT PRESERVE"
continued from page 171

park for about seven or eight years, and now June Mitchell has been coordinating the park maintenance.

Weeding, watering, planting, pruning, and making trails demand a lot of work. The loving and strong hands of the Point Loma Garden Club (98% women) have given the city of San Diego a great gift. Over the years, there were many who gave their energy. Some regulars include (you whom I missed many more thanks) Beryl Wilhoit, Kay Harry, Marilyn Cross, Jerry Morris, Lisa Martin, Nora Ferro, Mary Jane Lindley, and Lorna Pignola.

Change happens.

A year ago, the Point Loma Garden Club decided for several reasons that it could no longer be responsible for the park. Some members continue to keep the maintenance happening. They have been fortunate to have some volunteer support from various organizations.

But who would take on the responsibility as an organization? There could either be an independent organization, such as Friends of the Point Loma Native Plant Preserve (maybe a different and shorter name) or the park could be affiliated with another organization.

The San Diego River Park Foundation agreed to assist. Rob Hutsel, Peter St. Claire, and Jennifer Wilson helped organize several events.

They also contacted Mesa College's landscape architect instructor Pamela Chapman. Last spring her students spent the whole semester analyzing the park and making presentations and plans for the future of the park. They had many great ideas and visions. I hope there soon will be a public showing and discussion of these plans at the Point Loma Library.

What is the future of this wonderful sanctuary? Perhaps you know or would like to help. There will be a meeting **Saturday, December 11th at 10 a.m.** The location will either be the Point Loma Library or the Preserve itself. To volunteer or for information please contact June Mitchell at 619-223-6472.

Let's manifest visions and plant wildflowers!□

John Noble is second vice president of San Diego Floral Association. He is a partner in two businesses: In Harmony Herbs and Coastal Sage Gardening. Photographs by Mary Wick.

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ERRATA

July-August 2004, 95:4: issue, page 104, last sentence should be: This excerpt brought to our attention by Carl Herzog of Southern California Plumeria Society.

September-October 2004, 95:5: issue, page 130, first item should be: Sept. 25 Sat
Master Gardeners' Fall Gardening Seminar "Timely Tips for Fall Gardeners," 8:00 a.m.-3:45 p.m., Marina Village Conference Center. Six classes available, $12.00 each. To obtain a program. registration form, and directions enter www.mastergardenerssandiego.org or call 858-694-2860. Registration deadline is Sept. 15.
page 133,
second item should be: CGCI Floral Design Forum 2003-2004 featuring Donna Dysart, San Luis Obispo. An instructor in the Ikenobo school of Ikebana. Get a real understanding of this art form with the historical designs and the common thread throughout (time, place, price and telephone number correct in original).
page 136

We received a message from subscriber Carl Price describing corrections he would make in two articles: on page 136, under "Wildfires," on how many football fields per minute a grass fire covers, he believes it should be 1.2 instead of six. Author Jones says the figures were in an article in a newspaper.
On page 139,

"Why Do Trees Change Color in the Fall?," about yellow leaves being caused by the pigment carotene, Price writes, "Carotene accounts for a small fraction of yellow pigments in plant leaves and in plants generally; I think he meant *carotenoids*." Of the second paragraph, concerning chlorophyll, Price writes " . . . The senescence of leaves in the fall, including the loss of chlorophyll and the accumulation of anthocyanins, is triggered primarily by the shortening of the length of days, or more precisely by the increase in the length of nights. And the pigment that senses these changes is not chlorophyll but *phytochrome*, the core of the biological clocks in plants.

"As evidence, trees that drop their leaves in the fall in the northeast do the same when grown in San Diego, even though the temperatures here throughout the fall and winter are plenty high enough to satisfy the needs of chlorophyll synthesis!"

The City of San Diego Water Department, originator of this article, replied that their explanation is intended to make what can be very technical information more reader-friendly and relative to each person's day - to-day experience when the seasons change.

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3rd Fri - 12:30 pm, Escondido Joslyn Center
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RABBITS

RABBITS ARE A FORM of wildlife enjoyed by many people, but they can be very destructive to gardens and landscaped areas. Eight species of rabbits are found in California. Three of these species, the black-tailed hare or jackrabbit (*Lepus californicus*), the desert cottontail (*Sylvilagus audubonii)*, and the brush rabbit (*S. bachmani*) are widespread and cause the majority of problems. Because of its greater size and abundance, the jackrabbit is the most destructive.

IDENTIFICATION

The jackrabbit is about as large as a house cat, weighing between 3 to 7 pounds with a body length of 17 to 21 inches. It has a grayish brown body, long black-tipped ears, relatively long front legs, and even longer hind legs. The top of its tail is black.

The desert cottontail rabbit and brush rabbit are distinguished from jackrabbits by their smaller size and shorter ears. The desert cottontail is 12 to 15 inches long, weighs between 1½ to 3¾ pounds and has pale gray fur with yellow tints. The brush rabbit is slightly smaller at 11 to 13 inches long, weighs between 1¼ to 1 4/5 pounds, and has brown fur.

A good sign that rabbits are present is coarse, circular fecal droppings or pellets found scattered over an area. Pellet size varies roughly with the body size of the species: jackrabbit pellets are about 1/2 inch in diameter, whereas pellets of the cottontail are closer to 1/4 inch.

BIOLOGY AND BEHAVIOR

Jackrabbits are usually found in open or semi-open areas of California valleys and foothills. They are seldom found in dense brush or woodlands. Within their preferred habitats, jackrabbits are quite adaptable and inhabit areas around the fringes of urban and suburban developments, green belts, golf courses, parks, airports, and agricultural lands. They make a depression in the soil, called a "form," beneath a bush or other vegetation and use it for hiding and resting during the day. Jackrabbits depend on speed and dodging to elude predators. In California an average density of about 1 1/5 jackrabbits per acre is typical, but during periods of high reproduction this number may increase.

The breeding season for jackrabbits runs from late January through August, although breeding is possible during any month of the year where winters are mild. Litter size averages between two to three, with as many as five to six litters per year. Young jackrabbits are born fully furred and with their eyes open. Within a day they can move about quite rapidly.

The food habits of jackrabbits are variable, depending on location and the availability of appropriate plants. Rabbits prefer to eat succulent, green vegetation; grasses and herbaceous plants make up the bulk of their diet. In some areas, rabbits eat leaves, bark, or seeds of woody shrubs. Feeding usually begins during the evening hours and continues throughout the night into early morning. Jackrabbits can survive without a supply of drinking water.

If food and other necessary resources are found in one place, jackrabbits exhibit no major daily movements. If food sources and areas for shelter are separated, jackrabbits will move between these areas in the morning and evening. Daily travel of 1 to 2 miles between areas is common. During dry periods, round trips of up to 10 miles have been observed. These travels are habitually made on the same trails every day, producing noticeable paths through herbaceous vegetation.

Common California rabbits (clockwise from top): jackrabbit, brush rabbit, and desert cottontail.

Unlike jackrabbits, desert cottontail and brush rabbits generally inhabit places with dense cover such as brushy areas, wooded areas with some underbrush, or areas with piles of rocks or debris. Abandoned structures and sometimes cultivated fields also are used for cover. Open areas are used more at night, while dense cover is used more during the day. The brush rabbit, however, seldom feeds more than a few feet from its cover.

Most cottontails and brush rabbits have a home range of up to 10 to 15 acres. A good habitat, such as a park with a clump of low-growing junipers about 30 feet

wide, may harbor 10 to 15 cottontails, but normal density is considerably less (an average of one rabbit per acre). Cottontails and brush rabbits are not territorial but maintain home ranges that overlap broadly with other individuals of all ages and classes. Cottontails and brush rabbits do not exhibit the same magnitude of daily travel as seen in jackrabbits, although they do make habitual use of travel lanes within their home range.

The breeding season for both cottontails and brush rabbits begins in December and ends in June. Average litter size is usually between three to four, with up to six litters per year. Rabbits give birth in a shallow depression on the ground. The newborn rabbits, which are nearly furless and have closed eyes, remain in the nest for several weeks.

The food habits of cottontails and brush rabbits vary with the location and time of year. Cottontails feed seasonally on grasses, sedges, herbaceous plants, willows, oaks, blackberries, and wild roses. Brush rabbits prefer clover and also feed on the stems and berries of woody plants such as blackberry.

DAMAGE

Rabbits can be very destructive in gardens and landscaped places. This is particularly true where wild or uncultivated lands border residential zones, parks, greenbelts, or other landscaped places. Open lands such as uncultivated, wild areas provide resting and hiding cover during the day within easy travel distances to prime, irrigated food sources.

The cosmopolitan tastes of rabbits are well illustrated by the following partial list of crops and plants they damage: vegetables (beans, beet, broccoli, carrot, lettuce, peas); tree and berry crops (almond, apple, blackberry, cherry, citrus, pistachio, plum, raspberry, strawberry); herbs (cilantro, parsley); and ornamental plantings (various flowers, shrubs, trees, and turf). Rabbits also gnaw and cut plastic irrigation lines.

Most rabbit damage is close to the ground, except where snow allows rabbits to reach higher portions of plants. Rabbits use their incisors to make a characteristic diagonal, 45° cut when clipping off woody twigs, buds from saplings, or flower heads. Twig clipping by rabbits is sometimes confused with deer browsing. Deer damage can be identified easily if it occurs above a height that rabbits can reach (about 2 feet) and by careful examination of the damaged twigs. Deer have no upper front teeth and must twist and pull when browsing, leaving a ragged break on the branch. Rabbits clip twigs off cleanly, as if with a knife.

Rabbits tend to gnaw the smooth, thin bark from young trees. The rough bark of older trees discourages gnawing, although old damage and gnaw marks are often present on old bark along with fresh patches of gnawing in areas of younger growth. Gnawing can completely girdle a tree, and clipping can remove the terminal shoots and lateral branches from plants. Damage by cottontails and brush rabbits is often concentrated in areas near escape cover. Jackrabbits, however, will feed far into open areas and can eat 1/2 to 1 pound of green vegetables each day.

Tularemia, or rabbit fever, may be carried by rabbits. This disease is relatively rare in humans but can be contracted by handling an infected rabbit with bare hands or by eating insufficiently cooked rabbit meat.

LEGAL STATUS

Jackrabbits, cottontails, and brush rabbits are classified as game mammals by the California Fish and Game Code; however, there is an important distinction between the three species as to when control is permitted. Jackrabbits may be controlled (i.e., killed or trapped) anytime or in any legal manner by the owner or tenant of the premises, or employee thereof, if they are damaging growing crops or other property, which includes ornamental plants and irrigation lines.

Cottontails or brush rabbits may be killed or trapped by the owner or tenant of the land, or by any person authorized in writing by such owner or tenant of the land, or by any person authorized in writing by such owner or tenant, when the rabbits are damaging crops or forage. If any person other than the owner or tenant transports cottontails or brush rabbits from the property where they were taken, they must carry written authority from the owner or tenant. These rabbits cannot be sold. Wildlife enforcement officers may not allow killing or trapping of cottontails or brush rabbits when the damage they are causing is to ornamental plantings or to property; contact your local game warden for information.

Bury a rabbit fence at least 6 to 10 inches and turn the bottom portion of the fence outward to prevent rabbits from digging under.

MANAGEMENT

A number of methods can be used to reduce rabbit damage, but physical exclusion, trapping, and, to a lesser degree, repellents are recommended for protecting garden and home areas. In cases where these methods are not practical, contact your local farm advisor or

agricultural commissioner for further information.

EXCLUSION

Probably the most long-term, effective way to protect plantings from rabbit damage is to build a fence. Uses a 48-inch-tall wire fence with the bottom buried at least 6 to 10 inches in the ground. Bending a few inches of the fence bottom outwardly will further deter rabbits from digging under it. If the bottom of the wire fence is not buried, then the bottom edge must be staked down to deter rabbits from passing under it. Mesh size should be no larger than 1 inch to exclude young rabbits. Use tight-fitting gates with sills to keep rabbits from digging below the bottom rails. Keep gates closed as much as possible because rabbits can be active day or night. Inspect the fence regularly to make sure rabbits or other animals have not dug under it. Poultry netting supported by light stakes is adequate for rabbit control.

Electric netting (a type of electric fence) is also suitable for rabbit control. It is designed for ease of installation and frequent repositioning. Electric netting is intended for temporary use at any one site, making it ideal for seasonal gardens. Because of the many variables affecting the selection of a power source and operation of an electric fence, it is best to consult a reputable dealer for specific details regarding its use.

Trunk protection

In some cases, protecting individual plants may be more practical than excluding rabbits from an entire area. Poultry netting (chicken wire) with 1-inch mesh, 18 to 24 inches wide, can be cut into strips 18 to 20 inches long and formed into cylinders to be placed around the trunks of young trees, shrubs, or vines. Bury the bottom of the cylinders 2 to 3 inches and brace them away from the trunk so rabbits cannot press against the cylinder and nibble through the mesh. Inspect these barriers regularly and be sure to keep the area inside the barriers clean of leaves, weeds, and other debris to eliminate feeding sites for small rodents. Commercial tree trunk protectors are also available.

TRAPPING

Live trapping of cottontails and brush rabbits is not recommended because it creates a dilemma of what to do with the trapped animal. Rabbits can carry certain diseases and are considered agricultural pests; according to California Fish and Game Code, it is illegal to release them in other areas without a written permit. Handling a live rabbit also creates the possible hazard of disease transmission to the trapper.

REPELLENTS

Various chemical repellents can reduce or prevent rabbit damage. They are most useful when applied to trees, vines, or ornamentals. Repellents can be classified as area (odor), taste, or contact (sticky) repellents. Research has shown that repellents with putrescent whole-egg solids can reduce browsing by rabbits.

Apply repellents before damage occurs and reapply them frequently, especially after a rain, heavy dew, or sprinkler irrigation, or when new growth occurs. In all cases, follow the label direction for the repellent you are using.

The usefulness of repellents is limited. They work best to protect woody plants during the early years before they bear fruit or during winter. Most, except some taste repellents, cannot be used on plants or plant parts to be eaten by humans. Repellents usually fail when used in a vegetable garden, which contains highly preferred rabbit foods, even if the repellents are registered for use on edible crops.

HABITAT MANAGEMENT

Remove hiding cover to discourage cottontails and brush rabbits, especially in suburban habitats where alternate habitats may be limited. Remove brambles, piles of brush, stones or other debris where rabbits might hide. Control vegetation along fence rows, ditch banks, or brushy areas. Keep in mind vegetation management may affect other wildlife, notably songbirds. Removing cover probably would have little effect on jackrabbits because they can use cover that is often great distances from the feeding sites.

OTHER CONTROL METHODS

Other control methods tried, such as shooting, noisemakers, flashing lights, pet dogs and cats, wild predators, and toxic baits are only moderately successful and some are lacking in practicality. □

This is a partial reprint of a "Pest Notes" publication, #7447 from the University of California, no author given.

For more information, this paper is downloadable at www.anrcatalog.ucdavis.edu—at search menu enter #7447.

If you would like to participate in a survey concerning damage done by rabbits, being conducted by the Farm and Home Advisor in San Diego, call Master Gardeners at 619-694-2860.

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